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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
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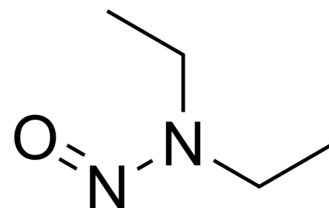
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N-Nitrosodiethylamine

Cat. No.:	HY-N7434
CAS No.:	55-18-5
Molecular Formula:	C ₄ H ₁₀ N ₂ O
Molecular Weight:	102.14
Target:	DNA/RNA Synthesis
Pathway:	Cell Cycle/DNA Damage
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (979.05 mM; Need ultrasonic)
H₂O : 100 mg/mL (979.05 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	9.7905 mL	48.9524 mL	97.9048 mL
	5 mM	1.9581 mL	9.7905 mL	19.5810 mL
	10 mM	0.9790 mL	4.8952 mL	9.7905 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: PBS
Solubility: 100 mg/mL (979.05 mM); Clear solution; Need ultrasonic and warming and heat to 60°C
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (24.48 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (24.48 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (24.48 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

N-Nitrosodiethylamine (Diethylnitrosamine) is a potent hepatocarcinogenic dialkylnitrosoamine. N-Nitrosodiethylamine is mainly present in tobacco smoke, water, cheddar cheese, cured, fried meals and many alcoholic beverages. N-Nitrosodiethylamine is responsible for the changes in the nuclear enzymes associated with DNA repair/replication. N-Nitrosodiethylamine results in various tumors in all animal species. The main target organs are the nasal cavity, trachea, lung, esophagus and liver.

In Vivo

N-Nitrosodiethylamine can be used in animal modeling to construct models of liver fibrosis.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Int J Biol Macromol. 2024 Jan 14;129432.
- Oncol Rep. 2023 Jul;50(1):142.

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REFERENCES

- [1]. Ramakrishnan G, et al. Suppression of N-nitrosodiethylamine induced hepatocarcinogenesis by silymarin in rats. Chem Biol Interact. 2006 Jun 10;161(2):104-14.
- [2]. Bansal AK, et al. Protective role of Vitamin E pre-treatment on N-nitrosodiethylamine induced oxidative stress in rat liver. Chem Biol Interact. 2005 Oct 20;156(2-3):101-11.
- [3]. Gombar CT, et al. Pharmacokinetics of N-nitrosodimethylamine in beagles. Cancer Res. 1987 Jan 15;47(2):343-7.
- [4]. Verna L, et al. N-nitrosodiethylamine mechanistic data and risk assessment: bioactivation, DNA-adduct formation, mutagenicity, and tumor initiation. Pharmacol Ther. 1996;71(1-2):57-81.

Caution: Product has not been fully validated for medical applications. For research use only.

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